

WHAT IS CLAIMED IS:

1. A composition comprising polyaniline (PANI), poly(2-acrylamido-2-methyl-1-propanesulfonic acid) (PAAMPSA), and an amount of poly(styrenesulfonic acid) (PSS) sufficient to reduce the conductivity of said composition.
2. A composition according to claim 1 comprising polyaniline with poly(2-acrylamido-2-methyl-1-propanesulfonic acid) as the counterion (PANI/PAAMPSA), and an amount of poly(styrenesulfonic acid) (PSS) sufficient to reduce the conductivity of said composition.
3. A composition according to claim 1, further comprising polyacrylamide (PAM).
4. A composition according to claim 1, wherein the PANI/PAAMPSA:PSS weight % ratio is in the range of about 1:0.05 up to about 1:2.
5. A composition according to claim 1, wherein the PANI/PAAMPSA:PSS weight % ratio is in the range of about 1:0.2 up to about 1:1.
6. A high resistance buffer layer comprising PANI/PAAMPSA and PSS.
7. A high resistance buffer layer according to claim 6, further comprising PAM.
8. A high resistance buffer layer according to claim 6, wherein said layer has a conductivity less than about  $1 \times 10^{-4}$  S/cm.
9. A high resistance buffer layer according to claim 6, wherein said layer has a conductivity less than about  $1 \times 10^{-6}$  S/cm.
10. A high resistance buffer layer according to claim 6, wherein said buffer layer can be dried at temperatures of less than about 90°C.
11. A high resistance film comprising PANI/PAAMPSA and PSS.
12. A high resistance film according to claim 11, further comprising PAM.
13. A high resistance film according to claim 11, wherein said film has a conductivity less than about  $1 \times 10^{-4}$  S/cm.
14. A high resistance film according to claim 11, wherein said film has a conductivity less than about  $1 \times 10^{-6}$  S/cm.
15. A high resistance film according to claim 11, wherein said film can be dried at temperatures of less than about 90°C.
16. An organic light emitting diode (OLED) comprising a high resistance buffer layer comprising PANI/PAAMPSA and PSS.

17. An OLED according to claim 16 wherein said buffer layer further comprises PAM.

18. An OLED according to claim 16, wherein said buffer layer has a conductivity less than about  $1 \times 10^{-4}$  S/cm.

5 19. An OLED according to claim 16, wherein said buffer layer has a conductivity less than about  $1 \times 10^{-6}$  S/cm.

20. An electronic device comprising a high resistance buffer layer comprising PANI/PAAMPSA and PSS.

10 21. An electronic device according to claim 20 wherein said buffer layer further comprises PAM.

22. An electronic device according to claim 20, wherein said buffer layer has a conductivity less than about  $1 \times 10^{-4}$  S/cm.

23. An electronic device according to claim 20, wherein said buffer layer has a conductivity less than about  $1 \times 10^{-6}$  S/cm.

15 24. The electronic device of claim 20, wherein the electronic device comprises a display.

25. A method for reducing conductivity of a PANI/PAAMPSA film cast from aqueous solution onto a substrate to a value less than about  $1 \times 10^{-4}$  S/cm, said method comprising adding an effective amount of PSS to  
20 said aqueous solution.

26. A method according to claim 25, wherein said conductivity of said film is less than about  $1 \times 10^{-6}$  S/cm.

27. A method according to claim 25, wherein said film can be dried at temperatures of less than about 90°C.

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